**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**
**Before the Board of Patent Appeals and Interferences**

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| **Inventor(s)** | : | Shaily Verma et al. |
| **Serial No.** | : | 10/518,996 |
| **Filed** | : | December 21, 2004 |
| **Title** | : | REGISTRATION OF A WLAN AS A UMTS ROUTING AREA FOR WLAN-UMTS INTERWORKING |
| **Examiner** | : | Naghmeh Mehrpour |
| **Art Unit** | : | 2617 |

# APPEAL BRIEF

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**P.O. Box 1450**
**Alexandria, VA 22313-1450**

**May It Please The Honorable Board:**

This is the Appellants' Brief on Appeal from the Examiner's rejection of Claims 1, 2, and 5-18, all of the presently active Claims. Please charge the $540 fee for filing this Brief to Deposit Account No. 07-0832. The Appellants waive an oral hearing for this appeal.

Please charge any additional fee, or credit any overpayment, to the above indicated Deposit Account. Enclosed is a single copy of this Brief.

## I. REAL PARTY IN INTEREST

The real party in interest of Application Serial No. 10/518996 is the Assignee of record:

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November 12, 2008
**Date**

Patricia M. Fedorowycz
**Patricia M. Fedorowycz**

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## II. RELATED APPEALS AND INTERFERENCES

There are currently, and have been, no related Appeals or Interferences regarding Application Serial No. 10/518,996, known to the undersigned attorney.

## III. STATUS OF THE CLAIMS

Claims 1, 2 and 5-18 have been rejected. The rejection of all of these Claims is appealed.

## IV. STATUS OF AMENDMENTS

All amendments were entered and are reflected in the Claims included in Appendix I.

## IV. SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 1 claims a method for registering a wireless local area network as a wireless network routing area (page 3, lines 10 to 12) comprising the steps of:

determining a location of a service request from a user within a wireless network, which comprises a packet-based support node (page 9, lines 1–17);

determining whether the location is in or near a wireless local area network access point (page 9, lines 18 to 22);

if at or near the wireless local area network access point, maintaining packet data protocol context while servicing the service request using the wireless local area network such that interworking between the wireless local area network and the wireless network is provided (last paragraph of Claim 1 as filed).

Independent Claim 11 claims a system for employing a wireless local area network as a wireless network routing area (page 3, lines 10 to 12), comprising:

a wireless network, which is capable of determining a location where a service request is made (page 9, lines 1 to 17);

the wireless network comprising a packet-based support node, which determines if the request can be serviced through a wireless local area network;

means for maintaining packet data protocol context while servicing the request using the wireless local area network to provide smooth handoff between the wireless local area network and the wireless network (Claim 11 as originally filed).

## V. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Examiner has rejected Claims 1, 2, 5-11, 13, 14, 16 and 18 as anticipated under 35 USC 102 (e) by Sundar et al., US 2003/0134638.

The Examiner has rejected Claims 12, 15 and 17 under 35 USC 103 (a) as unpatentable over Sundar et al. view of Das et al US 2004/0203765.

## VII ARGUMENT

**Rejection of Claims 1, 2, 5-11, 13, 14, 16 and 18 under 35 USC 102 (a) over Sundar et al. (US 2003/0134638)**

### Claims 1 and 11

This invention relates to a method and system for using a wireless local area network as a wireless network routing area, in which packet data protocol context with the wireless network is maintained while servicing a service request using the wireless local area network. Because packet data protocol context with the wireless network is maintained, a fast transition back to the wireless network results when the user leaves the wireless local area network access point. Nowhere is this invention shown or suggested by Sundar et al. Nowhere does Sundar et al show or suggest:

"maintaining packet data protocol context while servicing the service request using the wireless local area network",

as specifically set forth in Claims 1 and 11. The Examiner has asserted that Sundar et al. discloses maintaining packet data protocol (PDP) context while servicing the request using the WLAN such that interworking between the WLAN and the cellular network is provided, relying upon paragraphs 0065, 0057 and 0067 of Sundar et al. The Appellants can not agree with the Examiner's analysis.

Paragraph 0065 of Sundar et al. state that a mobile station always attempts to stay connected to a macro network.

Paragraph 0057 states that a multi-mode phone can operate in either a WLAN or a WWAN (wide area wireless network) environment.

Paragraph 0067 states that:

"upon successful detection of the beacon from AP 204 (in the WLAN)), the mobile station 310 de-registers from the macro network 300 and registers with the serving MSC 302 for the WLAN 200."

Nowhere does Sundar et al. teach or suggest:

"maintaining packet data protocol context while servicing the request using the wireless local area network",

as recited in Claims 1 and 11. Rather, Sundar et al. de-register from the macro network when the beacon from the WLAN is detected. Sundar teaches away from maintaining data packet protocol context with the cellular network while servicing the request of the WLAN. It is therefore clear that Sundar et al. do not anticipate the instant invention, as asserted by the Examiner, and that the rejection of Claims 1 and 11 should be reversed.

The Examiner has additionally cited US 2004/0203765 to Das et al., but has not applied Das et al. to Claims 1 and 11. Nevertheless, for completeness, the Appellants will discuss Das et al. as though it had been applied to Claims 1 and 11:

Das et al. relate to mobility between networks. When a mobile node roams into a WLAN, it disconnects from its GPRS and communicates through the WLAN. The mobile node is assigned a care-of-address which is reachable from the GPRS. See paragraph 0028. Nowhere does Das et al. show or suggest:

"maintaining packet data protocol context while servicing the service request using the wireless local area network",

as specifically set forth in Claims 1 and 11. It is therefore clear that Das et al. do not affect the patentability of Claims 1 and 11. It is furthermore clear that even if the disclosure of a of Das et al. were to be combined with the disclosure of Sundar et al., the patentability of Claims 1 and 11 would not be affected.

**Claims 2, 5-10, 13, 14, 16, 18**

Claims 2 and 5 to 10 are dependent from Claim 1 and add further advantageous features. The Appellants submit that these subclaims are patentable as their parent claim 1. Similarly, Claims 13, 14, 16 and 18 are dependent from Claim 11, and add further advantageous features. The Appellants submit that these subclaims are patentable as their parent Claim 11.

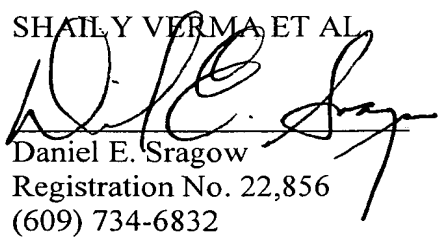
**Rejection of Claims 12, 15 and 17 under 35 USC 103 as unpatentable over Sundar et al. in view of Das et al.**

Claims 12, 15 and 17 are dependent from Claim 11 and add further advantageous features. The patentability of Claim 11 is not affected by Sundar et al. and Das et al., taken either separately or in combination, as has been shown above. Since Claims 12, 15 and 17 add further advantageous features to the invention defined by Claim 11, the Appellants submit that these subclaims are patentable as their parent Claim 11.

## VIII. CONCLUSION

Since neither of the cited references, taken either separately or in combination, affect the patentability of either independent Claims 1 and 11, or dependent Claims 2, 5-10 and 12-18, the Appellants submit that the rejection of all Claims should be reversed.

Respectfully submitted,
SHAILY VERMA ET AL.

By: 
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Attachments: Appendixes I, II, III

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## APPENDIX I APPEALED CLAIMS

1. A method for registering a wireless local area network as a wireless network routing area, comprising the steps of:

determining a location of a service request from a user within a wireless network, which comprises a packet-based support node;

determining whether the location is in or near a wireless local area network access point;

if at or near the wireless local area network access point, maintaining packet data protocol context while servicing the service request using the wireless local area network such that interworking between the wireless local area network and the wireless network is provided.

2. The method as recited in claim 1, wherein the step of maintaining packet data protocol context while servicing the service request using the wireless local area network includes restricting radio signaling between a user and the wireless network while using the wireless local area network.

3-4 (canceled).

5. The method as recited in claim ~~3~~ 1, further comprising the step of setting a periodic routing area update timer value while the user is in the wireless local area network to reduce signaling while a user is in the wireless local area network.

6. The method as recited in claim 1, further comprising the step of establishing packet switched signaling connection through the packet data protocol context when exiting the wireless local area network.

7. The method as recited in claim 1, further comprising the step of controlling loading of wireless cells by shifting user traffic service to wireless local area networks.

8. The method as recited in claim 1, wherein the interworking between the wireless network and the wireless local area network is provided by:

uniquely identifying the wireless local area network as the wireless network routing area of the wireless network; and

once identified, setting a routing area update timer to reduce a number of routing area updates to the wireless network.

9. The method as recited in claim 1, wherein the step of maintaining the PDP context includes maintaining the packet data protocol context to reduce handoff delay when re-entering the wireless network.

10. The method as recited in claim 1, further comprising the step of enabling wireless service providers to control loading of cells by shifting users to wireless local area networks by changing routing area identifiers of the users to that of a wireless local area network coverage area.

11. A system for employing a wireless local area network as a wireless network routing area, comprising:

a wireless network, which is capable of determining a location where a service request is made;

the wireless network comprising a packet-based support node, which determines if the request can be serviced through a wireless local area network;

means for maintaining packet data protocol context while servicing the request using the wireless local area network to provide smooth handoff between the wireless local area network and the wireless network.

12. The system as recited in claim 11, wherein the means of maintaining packet data protocol context includes a preservation function provided in a mobile station.

13. The system as recited in claim 11, further comprising a unique routing area identifier, which identifies the wireless local area network in the wireless network.

14. The system as recited in claim 11, further comprising a wireless local area network coverage area to reduce signaling while a user is in the wireless local area network coverage area.

15. The system as recited in claim 11, further comprising an interworking function for establishing and maintaining user services between the wireless local area network and the wireless network.

16. The system as recited in claim 11, wherein the wireless network includes a Universal Mobile Telecommunications System.

17. The system as recited in claim 11, wherein the means for maintaining packet data protocol context further comprises a radio access bearer setup procedure for establishing interworking between the wireless network and the wireless local area network.

18. The system as recited in claim 11, wherein the cellular network learns if a user is in a wireless local area network coverage area via a routing area identifier update message.

## APPENDIX II EVIDENCE

None.

## APPENDIX III RELATED PROCEEDINGS

None.